



Module 19 - Supervised Machine Learning Homework - Predicting Credit Risk

Instructions:

Evaluate the homework against the outlined criteria in the below rubric, assigning a rating to each criterion. Add points earned across all criteria and convert the total points to a letter grade, assigning a “+” or “-” letter grade designation at your discretion.

A (+/-)	90+	C (+/-)	70-79	F (+/-)	<60
B (+/-)	80-89	D (+/-)	60-69		

Notes:

The deployed assignment utilizes the **sklearn** library to train models on a set of data and used to make predictions. The source code should also be deployed to **GitHub** or **GitLab**.

Rubric for Predicting Credit Risk :

	Proficiency 100 to > 90 points	Approaching Proficiency 89 to > 80 points	Developing Proficiency 79 to > 60 points	Emerging 59 to > 0 points	Incomplete
Data Preprocessing	The submission does all of the following: <ul style="list-style-type: none">✓ X and y variables are created✓ The y variable contains the loan_status column✓ The train_test_split function is called on X and y together✓ Data is correctly split into a training and test set	The submission does 3 of the following: <ul style="list-style-type: none">✓ X and y variables are created✓ The y variable contains the loan_status column✓ The train_test_split function is called on X and y together✓ Data is correctly split into a training and test set	The submission does 2 of the following: <ul style="list-style-type: none">✓ X and y variables are created✓ The y variable contains the loan_status column✓ The train_test_split function is called on X and y together✓ Data is correctly split into a training and test set	The submission does 0-1 of the following: <ul style="list-style-type: none">✓ X and y variables are created✓ The y variable contains the loan_status column✓ The train_test_split function is called on X and y together✓ Data is correctly split into a training and test set <p>-OR-</p> <ul style="list-style-type: none">✓ No preprocessing done	No submission was received -OR- Submission was empty or blank -OR- Submission contains evidence of academic dishonesty



Data Boot Camp Grading Rubric

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Reflection and Reporting	<p>The submission does all of the following:</p> <ul style="list-style-type: none"> ✓ Makes a prediction on which model will perform better on the data. The prediction is made with adequate justification. (Note: no points are removed for predictions that prove to be incorrect) ✓ Makes a comparison between predicted behavior of the models and the actual results and gives adequate reasoning 	<p>The submission does the following:</p> <ul style="list-style-type: none"> ✓ Makes a prediction on which model will perform better on the data. The prediction is made with adequate justification. (Note: no points are removed for predictions that prove to be incorrect) ✓ Makes a comparison between predicted behavior of the models and the actual results, but fails to give adequate reasoning 	<p>The submission does 1 of the following:</p> <ul style="list-style-type: none"> ✓ Makes a prediction on which model will perform better on the data. The prediction is made with adequate justification. (Note: no points are removed for predictions that prove to be incorrect) ✓ Makes a comparison between predicted behavior of the models and the actual results 	<p>The submission does none of the following:</p> <ul style="list-style-type: none"> ✓ Makes a prediction on which model will perform better on the data. The prediction is made with adequate justification. (Note: no points are removed for predictions that prove to be incorrect) ✓ Makes a comparison between predicted behavior of the models and the actual results 	
Model Creation	<p>The submission does all of the following:</p> <ul style="list-style-type: none"> ✓ Creates and trains a <code>LogisticRegression</code> model ✓ Scores a <code>LogisticRegression</code> model ✓ Creates and trains a <code>RandomForestClassifier</code> model ✓ Scores a <code>RandomForestRegression</code> model 	<p>The submission does 3 of the following:</p> <ul style="list-style-type: none"> ✓ Creates and trains a <code>LogisticRegression</code> model ✓ Scores a <code>LogisticRegression</code> model ✓ Creates and trains a <code>RandomForestClassifier</code> model ✓ Scores a <code>RandomForestRegression</code> model 	<p>The submission does 2 of the following:</p> <ul style="list-style-type: none"> ✓ Creates and trains a <code>LogisticRegression</code> model ✓ Scores a <code>LogisticRegression</code> model ✓ Creates and trains a <code>RandomForestClassifier</code> model ✓ Scores a <code>RandomForestRegression</code> model 	<p>The submission does 0-1 of the following:</p> <ul style="list-style-type: none"> ✓ Creates and trains a <code>LogisticRegression</code> model ✓ Scores a <code>LogisticRegression</code> model ✓ Creates and trains a <code>RandomForestClassifier</code> model ✓ Scores a <code>RandomForestRegression</code> model <p>-OR-</p> <ul style="list-style-type: none"> ✓ Only uses non-classification models 	